



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,636	10/15/2003	Stephen W. Bedell	YOR920030340US1	4997
7590 09/20/2005			EXAMINER	
Ryan, Mason & Lewis, LLP			VU, HUNG K	
Suite 205			ART UNIT	
1300 Post Road			PAPER NUMBER	
Fairfield, CT 06824			2811	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/685,636

Applicant(s)

BEDELL ET AL.

Examiner

Hung Vu

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 12-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwane et al. (PN 6,140,209, of record).

Iwane et al. discloses, as shown in Figures 4-21B, a layer transfer structure (PW) comprising a carrier substrate (1,2) having a porous region (3) with a tuned porosity in combination with a species (silicon, Si) positioned therein defining a separation plane in the carrier substrate.

Regarding claim 2, note that the term “the separation plane is defined by a position and an amount of the implanted species” is method recitation in a device claimed. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Art Unit: 2811

Regarding claim 3, Iwane et al. discloses the structure further comprising a transfer layer (6) on the carrier substrate.

Regarding claim 4, Iwane et al. discloses the structure further comprising a tunable epitaxial layer (4). Note that the term “thermally regrown” is method recitation in a device claimed.

Regarding claim 5, Iwane et al. discloses a component selected from the group consisting of a device layer, an interposer structure, a functional layer and combinations comprising at least one of the foregoing components is formed in the tunable epitaxial layer.

Regarding claim 6, Iwane et al. discloses the porous region comprises a varied porosity.

Regarding claim 7, Iwane et al. discloses the porous region comprises at least two different porosities (3a,3b).

Regarding claims 8 and 9, note that the terms “the implanted species ...” are method recitations in a device claim.

Regarding claim 10, Iwane et al. discloses the carrier substrate comprises silicon.

Regarding claim 11, note that the term “is formed by a process selected ... foregoing process” is method recitation in a device claim.

Response to Arguments

2. Applicant's arguments filed 07/11/05 have been fully considered but they are not persuasive.

It is argued, at page 8 of the Remarks, that Iwane does not disclose a carrier substrate having a separation plane defined by a porous region with a tuned porosity in combination with a species positioned therein, as recited in claim 1. This argument is not convincing because Iwane discloses, as shown in Figures 4-21B, a layer transfer structure (PW) comprising a carrier substrate (1,2) having a porous region (3) with a tuned porosity in combination with a species (silicon, Si) positioned therein defining a separation plane in the carrier substrate. Therefore, Applicants' claim 1 does not distinguish over the Iwane reference.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung K. Vu whose telephone number is (571) 272-1666. The examiner can normally be reached on Tuesday-Friday 6:00-4:30, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Steven Loke can be reached on (571) 272-1657. The Central Fax Number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

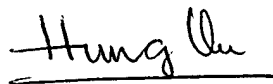
Application/Control Number: 10/685,636

Page 5

Art Unit: 2811

Vu

September 16, 2005

A handwritten signature in black ink, appearing to read "Hung Vu", is written over a horizontal line.

Hung Vu

Primary Examiner